APPENDIX A

CLAIMS ON APPEAL

1. A method for minimizing noise in an integrated circuit comprising:

choosing a net to be analyzed;

determining a total path length of conductive paths coupled to a driver within the net;

examining a noise amplitude versus length of conduction path curve associated with the driver to determine a noise level associated with the total path length of conductive paths coupled to the driver;

comparing the noise level associated with the total path length of conductive paths coupled to the driver to a maximum acceptable noise level;

identifying the noise level associated with the total path length of conductive paths coupled to the driver as exceeding the maximum acceptable noise level;

examining the noise amplitude versus length of conduction path curve associated with the driver to determine a modified total path length of conductive paths coupled to the driver that corresponds to a modified noise level that is less than the maximum acceptable noise level; and

modifying the net to reduce the total path length of conductive paths coupled to the driver to be less than or equal to the modified total path length of conductive paths.

2. A computer readable media containing program instructions that, when executed, exercise code for minimizing noise in an integrated circuit, the computer readable media comprising:

program instructions for choosing a net to be analyzed;

program instructions for determining a total path length of conductive paths coupled to a driver within the net;

program instructions for examining a noise amplitude versus length of conduction path curve associated with the driver to determine a noise level associated with the total path length of conductive paths coupled to the driver;

program instructions for comparing the noise level associated with the total path length of conductive paths coupled to the driver to a maximum acceptable noise level;

program instructions for identifying the noise level associated with the total path length of conductive paths coupled to the driver as exceeding the maximum acceptable noise level;

program instructions for examining the noise amplitude versus length of conduction path curve associated with the driver to determine a modified total path length of conductive paths coupled to the driver that corresponds to a modified noise level that is less than the maximum acceptable noise level; and

program instructions for modifying the net to reduce the total path length of conductive paths coupled to the driver to be less than or equal to the modified total path length of conductive paths.

3. A method for minimizing noise in an integrated circuit comprising:

choosing a net to be analyzed;

determining a total path length of conductive paths coupled to a first driver within the net;

examining a first noise amplitude versus length of conduction path curve associated with the first driver to determine a first noise level associated with the total path length of conductive paths;

comparing the first noise level associated with the total path length of conductive paths to a maximum acceptable noise level;

identifying the first noise level as exceeding the maximum acceptable noise level;

examining a second noise amplitude versus length of conduction path curve associated with a second driver to determine a second noise level associated with the total path length of conductive paths;

comparing the second noise level associated with the total path length of conductive paths to the maximum acceptable noise level;

identifying the second noise level as not exceeding the maximum acceptable noise level; and

replacing the first driver with the second driver.

4. A computer readable media containing program instructions that, when executed, exercise code for minimizing noise in an integrated circuit, the computer readable media comprising:

program instructions for choosing a net to be analyzed;

program instructions for determining a total path length of conductive paths coupled to a first driver within the net;

program instructions for examining a first noise amplitude versus length of conduction path curve associated with the first driver to determine a first noise level associated with the total path length of conductive paths;

program instructions for comparing the first noise level associated with the total path length of conductive paths to a maximum acceptable noise level;

program instructions for identifying the first noise level as exceeding the maximum acceptable noise level;

program instructions for examining a second noise amplitude versus length of conduction path curve associated with a second driver to determine a second noise level associated with the total path length of conductive paths;

program instructions for comparing the second noise level associated with the total path length of conductive paths to the maximum acceptable noise level;

program instructions for identifying the second noise level as not exceeding the maximum acceptable noise level; and

program instructions for replacing the first driver with the second driver.

5. The method for minimizing noise in an integrated circuit according to claim 1, wherein the curve defines a relationship between noise amplitude and conduction path length for a particular strength of the driver.

6. The method for minimizing noise in an integrated circuit according to claim 5, wherein the curve defines a maximum allowable noise amplitude for the net.

7. The method for minimizing noise in an integrated circuit according to claim 1, wherein modifying the net includes inserting at least one buffer within the net.

8. The method for minimizing noise in an integrated circuit according to claim 7, wherein the curve associated with the driver defines a relationship between noise amplitude and conduction path length for a particular strength of the driver.

14. The method for minimizing noise in an integrated circuit according to claim 1, wherein determining the total path length of conductive paths coupled to the driver within the net includes a plurality of intersecting conduction paths.

15. The method for minimizing noise in an integrated circuit according to claim 14, further comprising:

identifying a timing issue associated with one or more conduction paths within the plurality of intersecting conduction paths; and

choosing an insertion position of at least one buffer to be within one of the plurality of intersecting conduction paths that is not identified as being associated with the timing issue.

16. The method for minimizing noise in an integrated circuit according to claim 3, wherein the curve defines a relationship between noise amplitude and conduction path length for a particular strength of the driver.

17. The method for minimizing noise in an integrated circuit according to claim

16, wherein the curve defines a maximum allowable noise amplitude for the net.

25. The method for minimizing noise in an integrated circuit according to claim 3, wherein determining the total path length of conductive paths coupled to the driver within the net includes a plurality of intersecting conduction paths.

27. The computer readable media containing program instructions that, when executed, exercise code for minimizing noise in an integrated circuit according to claim 2, wherein the curve defines a relationship between noise amplitude and conduction path length for a particular strength of the driver.

28. The computer readable media containing program instructions that, when executed, exercise code for minimizing noise in an integrated circuit according to claim 27, wherein the curve defines a maximum allowable noise amplitude for the net.

29. The computer readable media containing program instructions that, when executed, exercise code for minimizing noise in an integrated circuit according to claim 2, wherein the program instructions for modifying the net includes program instructions for inserting at least one buffer within the net.

30. The computer readable media containing program instructions that, when executed, exercise code for minimizing noise in an integrated circuit according to claim 29, wherein the curve associated with the driver defines a relationship between noise amplitude

and conduction path length for a particular strength of the driver.

36. The computer readable media containing program instructions that, when executed, exercise code for minimizing noise in an integrated circuit according to claim 2, wherein the total path length of conductive paths coupled to the driver within the net includes a plurality of intersecting conduction paths.

37. The computer readable media containing program instructions that, when executed, exercise code for minimizing noise in an integrated circuit according to claim 36, further comprising:

program instructions for identifying a timing issue associated with one or more conduction paths within the plurality of intersecting conduction paths; and

program instructions for choosing an insertion position of at least one buffer to be within one of the plurality of intersecting conduction paths that is not identified as being associated with the timing issue.

38. The computer readable media containing program instructions that, when executed, exercise code for minimizing noise in an integrated circuit according to claim 4, wherein the curve defines a relationship between noise amplitude and conduction path length for a particular strength of the driver.

39. The computer readable media containing program instructions that, when executed, exercise code for minimizing noise in an integrated circuit according to claim 38,

wherein the curve defines a maximum allowable noise amplitude for the net.

47. The computer readable media containing program instructions that, when executed, exercise code for minimizing noise in an integrated circuit according to claim 4, wherein the total path length of conductive paths coupled to the driver within the net includes a plurality of intersecting conduction paths.